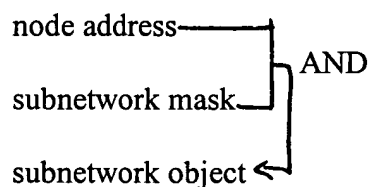


Remarks

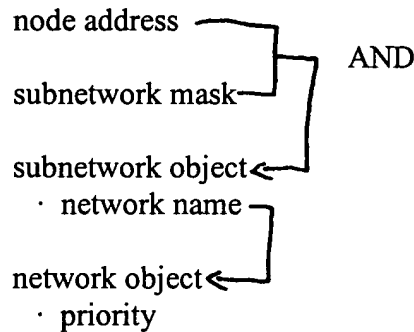
Entry of the amendments, reconsideration of the application, as amended, and allowance of all pending claims are respectfully requested. Claims 1-36 remain pending.

In the Office Action, dated May 14, 2004, claims 4-6, 15-17 and 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. While applicants respectfully disagree with this rejection, applicants have amended claims 4-5, 15-16 and 27-28 to further clarify the steps, as requested by the Examiner. This is in a bona fide attempt to advance prosecution of this application. Applicants respectfully submit that, as amended, the claims clearly indicate where in the mapping function the particular steps would be performed. For example, claim 4 recites that the mapping of a node address includes performing one or more operations on the node address to identify a subnetwork object of the node address, and retrieving from the subnetwork object an indication of the particular network object corresponding to the node address. This is further described below, for clarification purposes.

As depicted in FIG. 23, and described in the accompanying text, a node address is used to locate a particular network object. In one example, this includes performing an operation on the node address, such as a logical AND operation with a subnetwork mask, to identify a subnetwork object:



From the subnetwork object, a network name is retrieved that identifies a particular network object that is associated with the node address:



The network object includes the network priority.

Applicants respectfully submit the mapping element in applicants' claims is clear, and applicants respectfully request withdrawal of the Section 112 rejection.

In addition to the above, claims 1, 7-14, 18-26 and 30-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Pitkin et al. (U.S. Patent No. 5,341,477). Applicants respectfully, but most strenuously, traverse this rejection for the reasons herein.

In one aspect of applicants' invention, system traffic of a clustered computing environment is controlled. In order to provide this control, a particular service node address is coupled based on network topology to a particular network object that holds information regarding that service node address. For example, as shown in FIG. 23 and described above, the network topology is defined by the association of a node address definition, a subnetwork definition, and a network definition. The definition for a particular node address is used to point to a particular network definition via a subnetwork definition. Thus, the node address is mapped to the network definition data. That is, one or more operations are performed on the node address to locate a particular network definition. For example, a logical AND operation is performed on a node address and subnetwork mask of the node address definition data to obtain a subnetwork prefix of a subnetwork definition data. The subnetwork definition data includes a network name, which is associated with the subnetwork, and is used to obtain a network definition data. Within that network definition data is a service routing table which includes the network priority assigned to the node address for that service. Thus, when there are a plurality of service node addresses, each address is massaged in such a way as to obtain the plurality of priorities associated with the plurality of addresses. Then, a service is contacted based on the priorities.

In one example, applicants claim a method of controlling system traffic of a clustered computing environment (e.g., claim 1). The method includes, for instance, mapping one or more node addresses, for a service to be provided, to one or more network objects defined for the service, wherein the mapping of a node address comprises performing one or more operations on the node address to locate a particular network object of a plurality of network objects, said particular network object corresponding to the node address and including a network priority assigned to the node address for the service to be provided, said network priority indicating an order of preference for using one network over another network to access the service; obtaining from the one or more network objects one or more network priorities of the service; and contacting the service based on the one or more network priorities. Thus, in applicants' claimed invention, one or more operations are performed on a node address to obtain a particular network object corresponding to that node address. The particular network object includes the network priority associated with that node address. Therefore, the network priority for the service for a particular node address is obtained from a network object associated with that node address. This is very different from the teachings of Pitkin.

Pitkin describes the use of a broker to select a server to be used by a client to access a service. When the broker receives a client request, the broker selects, based on a round robin approach, a server from a list of servers that can service that request (see, e.g., Col. 3, lines 1-30). The broker then informs the client of the server to use. There is no description, teaching or suggestion in Pitkin of mapping a node address for a service to be provided to a network object defined for that service, wherein the mapping of the node address includes performing one or more operations on the node address to locate a particular network object. Further, there is no description, teaching, or suggestion in Pitkin that the particular network object that was located after performing the operation on the node address includes a network priority assigned to the node address for that service to be provided. At least these aspects of applicants' claimed invention are missing from Pitkin.

Pitkin merely describes the creating of a list of servers that may service a request based on the capacities of those servers. There is absolutely no description in Pitkin of taking a node address and performing an operation on that node address to locate a network definition, which

includes a network priority that indicates which network to use to access the service. This is simply missing from Pitkin.

In the Office Action, various sections of Pitkin are cited as teaching applicants' claimed invention. However, applicants respectfully submit that those sections, as well as other sections of Pitkin, fail to describe, teach or suggest one or more aspects of applicants' claimed invention. For example, those sections fail to describe, teach or suggest at least applicants' claimed element of mapping a node address for a service to be provided to a network object defined for the service, wherein the mapping of the node address comprises performing one or more operations on the node address to locate a particular network object of a plurality of network objects. Again, there is no discussion in Pitkin of performing an operation on a node address to locate a particular network object. To further explain, applicants will discuss each section cited in the Office Action.

One section cited in the Office Action is Col. 2, lines 42-47. This section merely describes that service limitations for a requested service are preferably established, as a matter of policy, during the network design and modelling process by a system or network manager, and that based upon that policy, a broker may suggest to a client a server which is best able to satisfy the client's service request. There is absolutely no discussion in that paragraph of taking a node address and performing an operation on that node address to locate a particular network object corresponding to that node address.

Another cited section is Col. 3, lines 3-8. This section describes that the network policy is based on the server's capacity to deliver a given service. Again, there is no discussion of applicants' claimed mapping element. For instance, there is no description, teaching or suggestion of mapping a node address to a network object, wherein the mapping includes performing an operation on the node address to locate a particular network object. This is simply not described.

Further sections cited are at Col. 6, lines 39-42 and Col. 6, lines 61-65. These sections describe that a server list is created for a service and that in response to a client request for service, a broker examines connection entries to determine a particular server's capacity. Again,

there is no description, teaching or suggestion of taking a node address for a service to be provided and performing an operation on that node address to locate a particular network object.

Another section that was cited is Col. 10, lines 20-27. This section discusses whether a particular server is available at the time a request comes in. Again, this section is silent as to the mapping of a node address to a service to be provided, wherein the mapping includes performing one or more operations on the node address to locate a particular network object.

It is further stated in the Office Action: “Note that the client accesses the broker via an address and then an operation is performed to provide a provider service address.” Applicants respectfully submit that even if an address is used by the client to access the broker, there is still no teaching or suggestion in Pitkin of performing an operation on the node address to locate a particular network object. For example, there is no description, teaching or suggestion of performing a logical AND operation on the node address and a subnetwork mask to ultimately locate a particular network object. There is no description of performing operations on the node address itself to locate a network object.

Based on the foregoing, applications respectfully submit that Pitkin does not describe, teach or suggest applicants’ claimed invention.

Further, applicants respectfully submit that there is no description, teaching or suggestion in Pitkin that the network object that is located by performing an operation on the node address includes a network priority assigned to that node address. Pitkin does not describe the use of a priority value located in a network object. As described above, there is no description of performing an operation on a node address to obtain a network object. Further, there is no description, teaching or suggestion in Pitkin of performing an operation on a node address to locate a network object that includes a network priority. Further, there is no description, teaching or suggestion in Pitkin of a network priority. Instead, Pitkin just uses a round robin approach to select a server from a list of servers. This is explicitly described in Col. 3, lines 28-31 of Pitkin.

Based on the foregoing, applicants respectfully submit that there is no description, teaching or suggestion in Pitkin of one or more aspects of applicants’ claimed invention. Since


these aspects are missing from Pitkin, applicants respectfully submit that Pitkin does not anticipate independent claim 1, as well as the other independent claims. Further, the dependent claims are patentable for the same reasons as the independent claims, as well as for their own additional features.

Applicants gratefully acknowledge the indication of allowability of claims 4-6, 15-17 and 27-29, if amended to overcome the Section 112 rejection and rewritten in independent form. At this time, applicants have not rewritten those claims in independent form, since they believe the claims from which they depend are patentable for the reasons herein.

Based on the foregoing, applicants respectfully request an indication of allowability for all pending claims.

Should the Examiner wish to discuss this case with applicants' attorney, please contact applicants' attorney at the below listed number.

Respectfully submitted,


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